## Appl. No. 10/027,039 Amendment dated April 12, 2004 Reply to Office Action dated January 12, 2004

## Amendments to the Specification

Please replace the paragraph beginning on page 6, line 7 with the following paragraph:

The microbridge semiconductor chip sensor contemplated, for example, in certain embodiments preferred for the invention may resemble the form of one [[ore]]or more of the microbridge systems illustrated in the patents identified above. Such a system is exemplified by FIGS. 1-3 taken from U.S. Pat. No. 4,994,035 to Aagard et al. A discussion of that example will now be presented, as it will be helpful in understanding the present invention. While the present discussion is believed sufficient, to the extent necessary, any additional material contained in the microbridge related patens cited is deemed to be incorporated herein by reference.

Please replace the paragraph beginning on page 10, line 7 with the following paragraph:

In FIG. 8, the normalized sensor output or TC is shown for a fluid where the CO<sub>2</sub> concentration is equal to the H<sub>2</sub>O concentration. This plot reflects a combination of the plots in FIG.'s 6 and 7. Evidence of this can be found, for example, at 20 mole-percent concentration of H<sub>2</sub>O and CO<sub>2</sub>, and a temperature of 220 degrees Celsius. At these characteristics, represented by reference numeral 108, the sensor output or TC is less than the sensor output or TC at a zero mole-percent H<sub>2</sub>O and CO<sub>2</sub> concentration value. In FIG. [[1]]6, the sensor output or TC represented by reference numeral 110, is greater than the sensor output of TC at a zero mole-percent H<sub>2</sub>O concentration.

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Please replace the paragraph beginning on page 12, line 1 with the following paragraph:

The fluid sensor output, without the temperature compensation method of the present invention, as depicted in FIG. 11, is shown as a function of the temperature for H<sub>2</sub> concentration at both zero mole-percent and at one mole-percent. Likewise, FIG. 13 is a representation of the sensor output for various other fluid compositions over temperature, before temperature compensation. FIG. 12 is the same graphical representation as FIG. [[12]]13 using the temperature compensation invention described herein.